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REMARKS

The comments of the Examiner as set forth in the Office Paper mailed 17 Feb. 2006 have been carefully studied and reviewed.

5 Claims 1, 3-16, 18-27, 31 and 32 are pending in the application.

Claims 31-32 have been withdrawn from consideration.

Claims 1, 3-16, and 18 - 27 have been rejected.

Claims 33 -40 have been added. These new claims were not previously presented for reasons to be described below.

10

Election/Restriction

Claims 31-32 have been withdrawn from consideration as being drawn to a non-elected invention.

15 **Claim Rejections: Double Patenting**

Clarification of the Assignment of the Present Pending Application

Claims 1 and 3-15 were rejected under the doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,552,110 (Yalvac et al.).

20 Claims 1, 3-16 and 18-27 were rejected under the doctrine of obviousness-type double patenting as being unpatentable over claims 1-25 of U.S. Patent No. 6,120,887 (Werenicz et al.).

25 In response, Applicants are first clarifying the ownership of the present pending application, and such clarification should indicate why the filing of a terminal disclaimer would be inappropriate.

The Examiner indicated that the Yalvac et al. and Werenicz et al. references had a common assignee with the present pending application (page 4 of the Office Action mailed 17

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0 Feb. 2006). Applicants assume the Examiner is referring to the Dow Chemical Company (“Dow”).

5 Embodiments of the present invention were developed pursuant to a Joint Development Agreement (“JDA”) between HRD Corporation (“HRD”) and Dow.

10 10 Applicants’ present pending application was filed on 19 September 2003. The filing of the present pending application was coordinated with Dow, which also filed a patent application on that same date. Dr. Teresa Karjala, an employee of Dow Chemical Co., is a common inventor on both the present pending application and the Dow application, a provisional application for U.S. patent, serial no 60/504,412 (“the ‘412 provisional”). Dr. Karjala has assigned her rights in both applications to Dow, and Dow has assigned its’ rights in the present pending application to HRD.

15 A copy of the “Patent Assignment Abstract of Title” for the present pending application, downloaded from the U.S.P.T.O.’s “Assignments on the Web” database, and appended hereto as Exhibit A (2 pages), is also summarized below for the Examiner’s convenience.

The “Patent Assignment Abstract of Title” indicates that on:

20 Feb. 11, 2004 Teresa Karjala assigned her interest in the present pending application to Dow; this assignment was recorded on reel/frame 015511/0071 on June 28, 2004.

May 13, 2004 Dow assigned its interest in the present pending application to HRD; this assignment was recorded on reel/frame 015385/0548 on June 1, 2004.

25 In May 2004 Aziz Hassan and Gregory Borsinger assigned their interest in the present pending application to HRD; this assignment was recorded on reel/frame 015385/0574 on June 1, 2004.

Thus, HRD is the sole assignee of the present pending application. Accordingly, filing a terminal disclaimer in response to the obviousness-type double patenting rejections would be inappropriate.

0 Applicants respectfully traverse this rejection. To reject a claimed invention based upon its obviousness over the prior art, the examiner must support such a rejection by establishing the invention's prima facie obviousness. The examiner must show where in the art cited there is a description of the claimed invention sufficient to have taught or suggested the invention to ordinarily skilled artisans of the time (see, e.g., ACS Hospital Systems, Inc., v. Montefiore Hospital, 221 USPQ 929, 933 (F. Cir. 1984); see also, In re Fine, 5 USPQ2d 1596 (F. Cir. 5 1988)).

10 Evaluation of whether the cited documents provide the necessary description requires consideration of "(1) whether the prior art would have suggested to those of ordinary skill in the art they should make the claimed [invention] ... and (2) whether the prior art would have also revealed that in so making ... those of ordinary skill would have a reasonable expectation of success" (In re Vaeck, 20 USPQ2d 1438, 1442 (F.Cir. 1991)). "Both the suggestion and the reasonable expectation of success must be found in the prior art, not in the applicant's disclosure" (In re Vaeck, supra). That is, "one cannot use hindsight reconstruction to pick and choose amongst isolated disclosures in the prior art to deprecate the claimed invention" (In re Fine, supra at 1600).

20 The compositions of the pending claims differ from those of the references because of the novel manner in which the ethylene/alpha-olefin interpolymers were produced, using catalysts that produce polymers with either a high or a low molecular weight, as described in the amendment to the specification. Example 5 of the present pending application, commencing on page 47 through page 50, and particularly in the footnotes to Tables 2 (page 39) and 5, and page 48, lines 3-17, describe the use of these different catalysts to synthesize the ethylene/α-olefin interpolymers. The amendment to the specification further clarifies the properties of these catalysts, and the interpolymers resulting from their use. Thus, there is no motivation in the 25 references to use ethylene/alpha-olefin interpolymers produced by such a process in a hot melt adhesive composition.

0 Applicants respectfully submit that the claims of the present pending application would not have been obvious in view of the teachings of either reference, and that Claims 1, 3-16 and 18-27 define patentable subject matter, and requests that the rejections of these claims be withdrawn.

5 **Claim Rejections - 35 USC § 102(e)**

Claims 1 and 3-15 were rejected under 35 U.S.C. 102(e) as being anticipated by Yalvac et al., (U.S. Pat. No. 6,552,110).

Claims 1, 3-16 and 18-27 were similarly rejected as being anticipated by Werenicz et al., (U.S. Pat. No. 6,120,887).

10 In response, Applicants respectfully traverse these rejections because neither reference is an appropriate reference under 35 U.S.C. §102. In order to be a valid reference under 35 U.S.C. §102, the reference must teach every aspect of the claimed invention either explicitly or impliedly, and any feature not directly taught must be inherently present. MPEP 706.02.

15 Neither reference teaches a hot melt adhesive composition, or ethylene/α-olefin interpolymers produced using a dual catalyst system as claimed herein. Claims 1 and 16 have been amended to further define embodiments of the invention, and properties of the homogeneous ethylene/alpha-olefin interpolymer and the hot melt adhesive composition. These amended claims, as a composition formed by a process, further describe how embodiments of the ethylene/α-olefin

20 interpolymers of the present invention were synthesized, and that their manner of synthesis results in ethylene/α-olefin interpolymers that are distinct from the ethylene/α-olefin interpolymers described in the cited references

25 The basis for these new claims is in the footnotes to Tables 2 (page 39) and 9 (page 49). The footnote in Table 2 relates to the use of $(C_5Me_4SiMe_2N^tBu)Ti(\eta^4-1,3\text{-pentadiene})$ and Ammonium borate [methylbis(hydrogenatedtallowalkyl) ammonium tetrakis (pentafluoro phenyl) borate, and a modified methylaluminoxanate (MMAO) available from AkzoNobel as MMAO-3A (CAS # 146905-79-10). The U.S. patents describing the synthesis of the former two

0 catalysts were specifically incorporated by reference. The catalysts described in the footnote to Table 9 were also described in the disclosures of U.S. patents which were also incorporated by reference, and in the text of a published PCT application WO 02/092619, which corresponds to U.S. Patent No. 6,825,347 B2.

5 Embodiments of the claimed invention were developed pursuant to a joint research agreement that was in effect on or before the date the claimed invention was made, and the claimed invention was made as a result of activities within the scope of the joint research agreement, as stated previously. Therefore, under 35 U.S.C. §103(c), the Yalvac *et al.* and Werenicz *et al.* references do not constitute prior art that would preclude patentability of the
10 pending claims.

15 Assuming that the Yalvac *et al.* and Werenicz *et al.* references are appropriate under other sections of 35 U.S.C. §102, Applicant maintains that they are improper references because of the manner of production of the ethylene/alpha-olefin interpolymers employed in the present pending application.

20 New Claims 33-40 further define the catalysts used in the system for synthesis of embodiments of the ethylene/α-olefin interpolymers of the present invention. The basis for these claims can be found in the footnotes to Table 9, as explained previously,

25 Applicants respectfully request that both the amended and the new claims be entered.

Claims 1, 3--16 and 18-27 therefore define patentable subject matter, and accordingly, the rejection of Claims 1, 3-16, and 18-27 based upon 35 U.S.C. §102(e) must respectfully be withdrawn.

Amendment to the Specification

Applicants recently learned the manner of how the ethylene/alpha-olefin interpolymers

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0 described in the present pending application were synthesized. As stated previously, Example 5 of the present pending application, commencing on page 47 through page 50, and particularly in the footnotes to Tables 2 (page 39) and 5, and page 48, lines 3-17, describe the use of different catalysts to synthesize the ethylene/α-olefin interpolymers. The amendment to the specification further clarifies the properties of these catalysts, and the interpolymers resulting from their use.

5 Additional details of how the ethylene/α-olefin interpolymers are synthesized are described in published PCT Application, WO 2005/028584 A1, which claims priority to the '412 provisional, and whose contents (i.e., contents of the '412 provisional) were only recently made publicly available through the PCT documents database maintained through the WIPO website (www.wipo.int).

10 The amendments to the specification of the present pending application clarify how these embodiments of ethylene/alpha-olefin interpolymers, employed in the hot melt adhesive compositions claimed herein, were synthesized. The catalysts used were described in the original specification of the present pending application in the footnotes to Tables 2 (page 39) and 9 (page 49), as described above.

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20 The amendment to the specification clarifies the catalyst system used to synthesize the novel ethylene/alpha-olefin interpolymers described in the present pending application, one of the catalysts being capable of producing an interpolymer with a high molecular weight, and another of the catalysts, using the same feed stock and monomers, being capable of producing an interpolymer with a low molecular weight.

25 **Other Claim Amendments**
Applicants respectfully request that these amendments be entered.

Claims 8, 23 and 24 have been amended to correct a grammatical error in the range, deleting the word "to" from between the lower value of the range and before the words "and about".

0 Claim 14 has been amended to correct a typographical error in line 2, specifically a misspelling of the word "from."

Conclusion

5 Applicants thanks the Examiner for the thoughtful review of this application, and respectfully requests the Examiner review the pending Claims and to find that they define patentable subject matter. Thus, it is respectfully requested that the present pending Claims be allowed.

10 In the event that this Amendment does not place the application in condition for allowance, the Examiner is respectfully requested to telephone the undersigned in order that an attempt can be made to place the application in condition for allowance as expeditiously as possible.

15 Respectfully submitted,



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Patent Assignment Abstract of Title

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Total Assignments: 3

Patent #: NONE	Issue Dt:	Application #: 10666488	Filing Dt: 09/19/2003
Publication #: US20040236002	Pub Dt:	11/25/2004	
Inventors: Aziz Hassan, Gregory Borsinger, Teresa P. Karjala			
Title: Novel multifunctional polymer for use in hot melt adhesive applications			
Assignment: 1	Recorded:	06/28/2004	Pages: 3
Reel/Frame: 015511/0071			Exec Dt: 02/11/2004
Conveyance: ASSIGNMENT OF ASSIGNEES INTEREST (SEE DOCUMENT FOR DETAILS).			
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Assignment: 2	Recorded:	06/01/2004	Pages: 3
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Conveyance: ASSIGNMENT OF ASSIGNEES INTEREST (SEE DOCUMENT FOR DETAILS).			
Assignor: DOW CHEMICAL COMPANY, THE			Exec Dt: 05/13/2004
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Assignment: 3
Reel/Frame: 015385/0574
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